Polaroid Names Killian Director

"Experience and Insight" Cited

Last Thursday Polaroid Corporation of Cambridge announced its election of Dr. James R. Killian, Jr., as a Vice President. President of Polaroid, Mr. Edwin H. Land, said of the election: "Dr. Killian brings to the Board long experience in the organization and administration of scientific and educational institutions." In 1945, he co-founded the Massachusetts Institute of Technology and served as its President for 26 years. He is a member of the National Academy of Sciences and the American Academy of Arts and Sciences, and has written extensively on the history of science and technology.

LSC to Present Pops Conductor

Arthur Fiedler, conductor of the Boston Pops Orchestra, will hold an open forum on Tuesday, December 18, at 7 P.M., in Kresge Auditorium. Mr. Fiedler is appearing at MIT under the auspices of the Lecture Committee. The forum is open to all members of the LSC and MIT community, and should be of particular interest to those students who have become active in LSC activities or who are considering joining the LSC. Mr. Fiedler has chosen to conduct as open forum with his audience in a more informal manner. The entire forum will be conducted on a question-and-answer basis in hope that the entire auditorium may be put to work, and interesting to a larger audience. The forum will consist of a series of such questions that will depend upon an interested and active audience whose questions concern the Lecture Committee program. It will be a chance to ask questions, and Mr. Fiedler will answer them as far as he is able, and to the best of his knowledge. He will try to arm his audience with a better understanding of the Lecture Committee program, and to make it more attractive to them.

By-law Changes Anticipated

IFC Weekend Planning Begins

Plans for IFC Weekend 1960 are underway. At last Thursday night's IFC meeting Bill Drakeley, VI, Chairman of the Weekend, brought up motions concerning the upcoming weekend. No theme is planned this year, nor are the games of last year's "Wild West Weekend" expected to be repeated. Drakeley mentioned the possibility of doing a "Spring Weekend" expected to be repeated. The IFC weekend will be passed out at the forum for the weekend. Following the forum will be the Presentation of Christmas music, from 9 to 11 P.M.

Frosh Debate Team Overpowers Harvard

Castle Wins Fourth Place at Tourney

The Frosh negative debating squad soundly defeated a negative squad of Harvard sophomores in a Tournament at St. Anselms last Saturday.

Frosh vs. Harvard

The affirmative defeated Harvard, 3 to 2. The positive was represented by: Bruce F. George, Daniel Hudgings, John C. Hulsey, and John H. Weal. The negative was represented by: Steve Wanner, VI, and Dan Gourley, VI. The debate topic was: "Resolved: The United Nations should be abolished by a more permanent international organization." The affirmative defeated the negative 3 to 2.

Senior House Men Celebrate Christmas

Danish Composer to Appear Here

Tonight at 8:00, in Kresge Auditorium, Einar Vigodt, well-known Danish orchestra conductor and pianist, will perform with the Lyceum Symphony Orchestra in celebration of the Danish people's National Holiday. Vigodt will perform a selection of Danzig music, including "The Little Mermaid" by J. S. Bach, and "Concerto in D Major" by C. P. E. Bach. He will also perform the "Prelude and Fugue in A Minor" and "Prelude and Fugue in D Minor." Vigodt is known for his organ and harpsichord recordings and has composed and arranged music for the Danish National Holiday. Vigodt is also known for his work in the field of musicology and has written extensively on the history of Danish music.
Commons and Sense

The recent epidemic of seemingly unknown origin in Baker House has brought about an interest in some points and a new view to which merit consideration.

First for the points of view. Some residents of Baker, the only undergraduate dormitory with dining rooms, are suspicious of everything which is compulsory and is not to be tolerated.

Perhaps the only thing on the MIT campus which is required, other than a certain amount of bull paying, is the commons meals for the residents of Baker House. If this anti- compulsory attitude really prevails, as some President Tappan has said, then there are a few values which are to be left unexamined.

The economic facts of life demand that if a dining room be installed people must eat there in order to make any operation pay, or at least break even. By this criterion alone compulsory commons is justifiable. It is also another hand, it seems to us as if it must be very nice to have a dining room at one's doorstep because we have never been able to say that of Baker House.

Many freshmen have "compulsory" meals, but we have never vouch for this on cold winter nights. It is also anotherifice of values which must be examined.

To the points of view. From the discussions precipitated by the Baker illnesses, it seems to us as if it must be very nice to have a prophet king. In the text of the oratorio, the Old Testament story is illustrated with New Testament philosophy. Donald Sullivan, tenor; and Robert Brooks, narrator.

"King David" combines chorus, oratorio and orchestra with the narrative of a king from a lowly shepherd to a prophet kind. In the test of the oratorio, the Old Testament story is illustrated with New Testament philosophy. Donald Sullivan, tenor; and Robert Brooks, narrator.

King David

Sunday afternoon in Kensey Auditorium the MIT Musical Clubs presented a stirring performance of Arthur Hoenger's "King David" conducted by Paul Boppole and featuring the combined glee clubs of MIT and Benjamin College.

King David

half notes

Daily

President

King David

Sunday afternoon in Kensey Auditorium the MIT Musical Clubs presented a stirring performance of Arthur Hoenger's "King David" conducted by Paul Boppole and featuring the combined glee clubs of MIT and Benjamin College, the MIT Orchestra, and soloists: Joyce McIntosh, sopranos; Regina Hemnig, alto; Carol Stokowski, mezzo; Donald Sullivan, tenor; and Robert Brooks, narrator.

King David" combines chorus, oratorio and orchestra with the narrative of a king from a lowly shepherd to a prophet kind. In the text of the oratorio, the Old Testament story is illustrated with New Testament philosophy. Donald Sullivan, tenor; and Robert Brooks, narrator.

"Incantation of the Witch of Endor", Mr. Brook's narration was masterful and impressive, to the say the least. The access of this concert, however, rests with the MIT Orchestra, whose performance was of remarkable precision and color, and the polyphonic style of which the performance was excellent. Both glee clubs handled their difficult parts with assurance except for a few entrances which were not as clear as they might have been. The performance was precise and the chorus directed well.

The soloists were commendable and special mention must be given to Miss Finaeno's excellent dramatic interpretation of the "Incantation of the Witch of Endor". Mr. Brook's marina was impressive, to the say the least.

The access of this concert, however, rests with the MIT Orchestra, whose performance was of remarkable precision and color, and the polyphonic style of which the performance was excellent. Both glee clubs handled their difficult parts with assurance except for a few entrances which were not as clear as they might have been. The performance was precise and the chorus directed well.

The soloists were commendable and special mention must be given to Miss Finaeno's excellent dramatic interpretation of the "Incantation of the Witch of Endor". Mr. Brook's marina was impressive, to the say the least.

The access of this concert, however, rests with the MIT Orchestra, whose performance was of remarkable precision and color, and the polyphonic style of which the performance was excellent. Both glee clubs handled their difficult parts with assurance except for a few entrances which were not as clear as they might have been. The performance was precise and the chorus directed well.

The soloists were commendable and special mention must be given to Miss Finaeno's excellent dramatic interpretation of the "Incantation of the Witch of Endor". Mr. Brook's marina was impressive, to the say the least.

The access of this concert, however, rests with the MIT Orchestra, whose performance was of remarkable precision and color, and the polyphonic style of which the performance was excellent. Both glee clubs handled their difficult parts with assurance except for a few entrances which were not as clear as they might have been. The performance was precise and the chorus directed well.

The soloists were commendable and special mention must be given to Miss Finaeno's excellent dramatic interpretation of the "Incantation of the Witch of Endor". Mr. Brook's marina was impressive, to the say the least.

The access of this concert, however, rests with the MIT Orchestra, whose performance was of remarkable precision and color, and the polyphonic style of which the performance was excellent. Both glee clubs handled their difficult parts with assurance except for a few entrances which were not as clear as they might have been. The performance was precise and the chorus directed well.

The soloists were commendable and special mention must be given to Miss Finaeno's excellent dramatic interpretation of the "Incantation of the Witch of Endor". Mr. Brook's marina was impressive, to the say the least.

The access of this concert, however, rests with the MIT Orchestra, whose performance was of remarkable precision and color, and the polyphonic style of which the performance was excellent. Both glee clubs handled their difficult parts with assurance except for a few entrances which were not as clear as they might have been. The performance was precise and the chorus directed well.

The soloists were commendable and special mention must be given to Miss Finaeno's excellent dramatic interpretation of the "Incantation of the Witch of Endor". Mr. Brook's marina was impressive, to the say the least.

The access of this concert, however, rests with the MIT Orchestra, whose performance was of remarkable precision and color, and the polyphonic style of which the performance was excellent. Both glee clubs handled their difficult parts with assurance except for a few entrances which were not as clear as they might have been. The performance was precise and the chorus directed well.

The soloists were commendable and special mention must be given to Miss Finaeno's excellent dramatic interpretation of the "Incantation of the Witch of Endor". Mr. Brook's marina was impressive, to the say the least.

The access of this concert, however, rests with the MIT Orchestra, whose performance was of remarkable precision and color, and the polyphonic style of which the performance was excellent. Both glee clubs handled their difficult parts with assurance except for a few entrances which were not as clear as they might have been. The performance was precise and the chorus directed well.

The soloists were commendable and special mention must be given to Miss Finaeno's excellent dramatic interpretation of the "Incantation of the Witch of Endor". Mr. Brook's marina was impressive, to the say the least.

The access of this concert, however, rests with the MIT Orchestra, whose performance was of remarkable precision and color, and the polyphonic style of which the performance was excellent. Both glee clubs handled their difficult parts with assurance except for a few entrances which were not as clear as they might have been. The performance was precise and the chorus directed well.

The soloists were commendable and special mention must be given to Miss Finaeno's excellent dramatic interpretation of the "Incantation of the Witch of Endor". Mr. Brook's marina was impressive, to the say the least.
20th Cenry Romance 378-379
Techniques in handling women
No academic credit, but who cares
Professor Romeo M.

The effects of well-groomed hair on romantic success in the mid-twentieth century. Laboratory demonstration of 'Vaseline' Hair Tonic, its effect on hair and women. Disastrous action of H2O on hair. Salutary effect of H2O plus 'Vaseline' Hair Tonic on hair. Term Paper: Unfavorable reaction of females to male's use of alcohol tonics and hair creams (Stuckyvvy's Law of Diminishing Returns). Students taking this course are advised to stock up on 'Vaseline' Hair Tonic and keep week ends open.

Materials: one 4 oz. bottle 'Vaseline' Hair Tonic

it's clear, it's clean, it's
Vaseline®
HAIR TONIC

A Campus-to-Career Case History

His "temporary" job became a career

Max P. Beere spent two years at the University of Hawaii while with the U.S. Navy, then earned his B.S. degree in Engineering at the University of Utah, where he served as technical lighting director for many television shows.

On graduating in 1955, he founded a television career for himself, but felt that, being married, he couldn't afford to serve a TV apprenticeship. Max had an interview with the Pacific Telephone and Telegraph Company in Los Angeles. "I was offered a position in transmission engineering," he says, "it sounded great—but I really thought of it as a 'temporary' thing until I could get into television."

Max's TV career came sooner than he had hoped. Assigned as telephone company liaison with the TV networks, he was soon surveying microwave relay routes for the "Wide, Wide World" show, and working on "remote" and mobile telecasts from such interesting locations as Death Valley and rocket-launching sites deep in the desert.

In August, 1956, he was transferred to San Diego, where he took on full responsibility for TV and radio Special Services. This led to a particularly satisfying assignment in 1959—the development of a new and successful closed-circuit educational TV system for 16 elementary schools in Anahiem.

"The telephone company really opened my eyes," says Max. "It's a fine place to work, where new ideas are welcomed and recognized and chances for advancement are excellent. I'm sold on it."

Max Beere is one of many young men with varied college backgrounds who are finding stimulating careers in the Bell Telephone Companies. Ask about opportunities for you. Talk with the Bell interviewer when he visits your campus—and read the Bell Telephone booklet on file in your Placement Office.

Santa Claus and Children
Fun for the Fraternities

The annual MIT fraternity Christmas parties, given for the benefit of local orphans and underprivileged children, were held over the past weekend. Among those fraternities participating were Delta Upsilon, Kappa Sigma, Phi Mu Delta, Lambda Chi Alpha and Phi Kappa Theta. The others were not known at press time. Delta Kappa Epsilon was entertaining at an Old Folks' Home instead of the usual party in the House this year.

Each House had 15-46 children in for several hours either Saturday or Sunday afternoon. The 6-10-year olds were picked up by fraternity members from Settlement Houses and Orphanages and brought back for the parties. Among the various entertainments supplied were movies, cartoons, toys, and general horseplay. The children were well fortified with ice cream and cake and assorted other goodies.

To top off the afternoon in most houses, Santa Claus put in an appearance, generally the finest member available, backed with a substantial gift for each child. After a chance to get used to their new toys the children were returned, very reluctant to leave.

Christmas parties have become a great tradition with fraternity groups. As one member put it, "We just like to help. Everybody feels better afterwards."

Sophs Form Drinking Club

Tradition Followed; SIF Is Formed

SEX, SIN, SIF, and Club 00 are organized for the increased consumption and enjoyment of the liquor from the bottle, square. These drinking organizations, unique in MIT for their spontaneity and absence of bureaucracy, sponsor highly spirited parties for all the members of their particular classes.

Formerly P-Clubs

Before 1954, a P-Club (P for party) opening to life each year as some members of the Senior Class continued the tradition of for years and worked together, without constitution, officers, chairman, or even INCORPORATION, to provide cocktail parties and the like to brighten the final year of MIT for their classmates.

SEX Takes Over

Some members of the Class of 1959 decided that this P-Club was a fine idea for sophomores and junior pieces as well. Since the P-Club of the Senior year was already in existence, a new name had to be chosen. Sigma Epsilon Chi, SEX, was the chosen name. Like its predecessor, it operated without organization other than the common bond of discretion to Democrats and their classmates.

Other Classes Follow

Club 00 became the name of the drinking club of the class of 1960. Sigma Iota Nu, SIN, became the ruling cry for the drinkers of the class of 1961.

In the great traditions, some of the classes of '62 recently decided their class name needed a drinking club. As is the usual procedure for the clubs, one of the interested volunteered his living group as the place for the party. As usual, prices and arrangements were made by one of the party. The first cocktail party of the class of 1962 took place at the Sunnym house, December 12. The Sunnym house took cues of the advertisement, as traditionally, in The Tech, inviting all members of the class. The name of the drinking club was decided at the party. About 79 sophomores attended.

SIF Selected

Ahead of each expression as IN and SIN name came Sigma Iota Phi. SIF is now the official name of the completely unofficial drinking club of the class of 1962.

There is a tradition at MIT. Europe next Summer?

GO WHILE THE GOING IS GOOD on a 1960 American Express Student Tour!

Right now, while you can still look forward to a long summer vacation, may be your one-in-a-lifetime opportunity to see, enjoy and study Europe. And the "going is always good" on an American Express Student Tour.... where experts arrange everything perfectly for your year-or-travel course. Tours are comprised of small groups, conducted by distinguished leaders from prominent colleges. Itineraries can include England... Belgium... Holland... Germany... Austria... Switzerland... Italy... The Rivieras... and France. Always time allowed for full sight-seeing and leisure, too.

Choose from: 10 interesting, educational Student Tours... or your own independent travel...

Member: Institute of International Education and Council on Student Travel. For complete information, see your Campus Representative, local Travel Agent or American Express Travel Service. Or simply mail the coupon.

AMERICAN EXPRESS TRAVEL SERVICE
16 Broadway, New York 6, N. Y. or Travel Service Division

Please send me complete information about

1960 Student Tours of Europe

Name.
Address.
City Zone State.
MIT Receives Grant for Adhesives
Bikerman to Head Research Here

The technique of making materials stick together, an important process in many industrial and commercial applications, has been significantly improved in laboratory research here at MIT.

The research has resulted in making previously non-stick substances highly adhesionable, and has substantiated a scientific theory that it termed a "break-through" in the field of industrial chemistry.

An internationally known expert on adhesive joints formulated the theory and carried out the research. He is Jon A. Bikerman, a research associate in the Department of Civil and Sanitary Engineering. Since 1956, Mr. Bikerman has been supervisor of the department's adhesives laboratory.

"Adhesive joints" is the technical term for the sticking together, or bonding, of two or more materials. The emergence of completely new systems in recent years, especially those composed of metal and plastics, has brought a need for more effective methods of joining components for a wide variety of applications. Some of the new polymeric materials (plastics) are constructed in such a way that their adhesive properties are poor, or non-existent. Polyethylene, the transparent plastic used in wrapping food and vegetables, is such a material.

On October 50, the National Science Foundation announced the award of a grant of $23,600 to MIT for support of basic research entitled "Factors Determining the Strength of Adhesive Joints." The grant will allow Mr. Bikerman to carry out additional research in support of his theory.

Mr. Bikerman's theory is that one material fails to adhere well to another material because chemical impurities and low-weight molecules cause a tiny "boundary layer" to form between the two. The very thin surface film is weak, so that any stress causes a break or tear along the film. The effect may be caused by a phenomenon known as "syneresis." Using polyethylene in his laboratory, Mr. Bikerman has proved that breaks and ruptures do occur in this boundary layer area. In carefully controlled and recorded tests, he has also substantiated his theory by chemically removing the impurities and making polyethylene cling tenaciously to various metals, glass, and plastic materials. Without such treatment polyethylene is non-adhesionable and is also extremely difficult to print upon.

In the field of industrial chemistry, this theory refutes the long-standing and generally accepted belief that the strength of an adhesive joint is determined by the molecular attraction between the adhered (the solid to which a material is attached) and the adhesive. Those who accept the molecular attraction, for example, say that a material like polyethylene will not adhere because of the weak molecular field surrounding its molecules.

The process used to make a non-sticking substance adhere is called fractional crystallization. This process removes the low-weight molecules and the impurities. The material is dissolved in boiling solvents such as xylene or toluene. When precipitated with acetone, polyethylene can be used as an adhesive between steel and steel, steel and glass, glass and glass, glass and aluminum, and in other combinations. Peeling tension of aluminum-polyethylene adhesives can be as high as 32 ounces per inch (about 6.5 pounds) as compared to close to zero with non-adhesionable materials.

The important aspect of the work, Mr. Bikerman pointed out, is not that it is effective with polyethylene alone, but that it supports his theory. This means a significant improvement in the adhesionable qualities of many different types of materials, to the ultimate benefit of industrial and commercial enterprises. The National Science Foundation grant, which is for two years duration, will allow further research with additional materials.

Mr. Bikerman has been busy and productive at MIT. In 1948 alone, he published a book, five of his technical papers were published in professional journals, and he received a fellowship. Born in Odessa, Russia, in 1898, he was graduated from the University of St. Petersburg in 1921. From 1921 until 1935 he was in Germany as a research associate at Kaiser-Wilhelm Institute of Physical Chemistry and later as assistant editor of an organic chemistry series. He conducted research in England from 1936 until 1939 at the University of Manchester and Cambridge, and for the next six years worked as a chemist and leader of adhesive research in several industries in Great Britain. He came to the United States in 1945, and was a senior chemist for Merck and Company, in New Jersey until 1951, then a senior chemist for Yardney Laboratories in New York before coming to MIT to supervise the adhesives laboratory.

Mr. Bikerman is married, has two children and four grandchildren, and lives at 26 Concord Avenue, Cambridge.

Hi-Fi Fans Alert

The Buy of the Year

Slighty used Sagen Amplifier

For information call
Steve Zilles At Ext. 3264

College Students Smoke
More Luckies Than
Any Other Regular!

When it comes to choosing their regular smoke, college students head right for fine tobacco.

Result: Lucky Strike tops every other regular sold. Lucky's taste beats all the rest because it's the result of careful research and development right here at Lucky Tobacco Co., the largest manufacturer and advertiser of fine tobacco.

Tobacco and Taste Too Fine to Filter!
New Institute Extensions
For Eight Fraternities

The following new fraternity telephone extensions will come into effect today and will remain at all others published prior to this date:

Delta Tau Delta 3174
Delta Upsilon 3866
Phi Kappa Sigma 3765
Phi Kappa Theta 3179
Sigma Alpha Epsilon 3792
Sigma Chi 3794
Tau Epsilon Phi 3793
Theta Chi 3885

Technique

Seniors who have as of yet not had their pictures taken for the yearbook still have the opportunity to do so. Harvard Studio, the official yearbook photographer, is accepting individual appointments through December 15. No pictures will be taken after this date.

DUAL FILTER DOES IT!

Filters as no single filter can...
for mild, full flavor!

Here's how the Dual Filter does it:

1. It combines a unique inner filter of Activated Charcoal, delicious enough to make the smoke of a cigarette mild and smooth.
2. With an efficient pure white outer filter. Together they bring you the best of the best tobaccos—the mellowness and taste that pay off in pleasure!

Publicized Christmas Card Albums
now on display
Order Now For Best Selection

TECHNIQUE

The revolution in collars, produced by the research of Arrow and other companies, makes it possible for you to choose for your own unique needs. The style you wear no longer tells about your job, but it tells a lot about your personality, marital status, occupation, and attributes. It could even be argued that shirt styles helped win the War for Independence. Benjamin Franklin, appointed ambassador to France for the colonies during the Revolution, refused the fancy vestments of the Europeans. Usually appeared at receptions dressed in the single, honest, and unembellished shirts that symbolized the new America. This lack of affectation endeared him to the French, and it was largely through their help that the colonies obtained their military supplies.

The collar of a shirt has often had political significance. The British soldiers, known as the redcoats, could have more properly been called the "red-shirts." It was usually the only garment they wore on their chests, and its height has been a perfect target for the Americansoldiers. In the Civil War, the shirts of blue and grey separated a great nation for four bloody years. And in many small towns, radical groups have used the shirt as their calling symbol. The black shirts of the socialists, the red lines of the Communists, and the brown ones of the Nazis are unforgettable reminders of terrorism.

During the twentieth century, the emphasis has been on comfort. Photographs and silent movies bring back to memory those high, choking collars that once were in style. Those grim expressions we often see in old portraits were probably due to the subject's agony. It was like wearing a perpetual dog collar, It's likely that Sherlock Holmes, who was able to tell a man's personality, marital status, occupation, and problems from the clothes he wore, would have more trouble today. A revolution in clothes-making has made old social distinctions difficult. The next time you're riding on a bus, take a look at the man seated next to you. The cut of his clothes will probably tell you only one thing: whether he's sloppy or neat. It would be hard to draw any further conclusions.

In the famous story, Holmes decided a man was a butcher by the style of his shirt collar. In those days, the shirt you wore was like a neon sign—a definite indication of your job. Butchers were famous for their candy-striped shirts with contrasting collars, cuffs for their cardboard-starched whites, and a waistcoat was never without his bone-stiff ebony front.

Chatty Advice

If you're the long, lank, and lanky type, the short point, medium spread "Glen" or the round-cornered "Tabler" collars will make you look less lanky. And if you're at the heavier end of the scale, the medium-point "Drew" collar provides long-needed comfort. The "Drake" style you wear no longer tells about your job, but it tells a lot about your personality, marital status, occupation, and attributes. It could even be argued that shirt styles helped win the War for Independence. Benjamin Franklin, appointed ambassador to France for the colonies during the Revolution, refused the fancy vestments of the Europeans. Usually appeared at receptions dressed in the single, honest, and unembellished shirts that symbolized the new America. This lack of affectation endeared him to the French, and it was largely through their help that the colonies obtained their military supplies.

The collar of a shirt has often had political significance. The British soldiers, known as the redcoats, could have more properly been called the "red-shirts." It was usually the only garment they wore on their chests, and its height has been a perfect target for the American soldiers. In the Civil War, the shirts of blue and grey separated a great nation for four bloody years. And in many small towns, radical groups have used the shirt as their calling symbol. The black shirts of the socialists, the red lines of the Communists, and the brown ones of the Nazis are unforgettable reminders of terrorism.

During the twentieth century, the emphasis has been on comfort. Photographs and silent movies bring back to memory those high, choking collars that once were in style. Those grim expressions we often see in old portraits were probably due to the subject's agony. It was like wearing a perpetual dog collar, It's likely that Sherlock Holmes, who was able to tell a man's personality, marital status, occupation, and problems from the clothes he wore, would have more trouble today. A revolution in clothes-making has made old social distinctions difficult. The next time you're riding on a bus, take a look at the man seated next to you. The cut of his clothes will probably tell you only one thing: whether he's sloppy or neat. It would be hard to draw any further conclusions.

In the famous story, Holmes decided a man was a butcher by the style of his shirt collar. In those days, the shirt you wore was like a neon sign—a definite indication of your job. Butchers were famous for their candy-striped shirts with contrasting collars, cuffs for their cardboard-starched whites, and a waistcoat was never without his bone-stiff ebony front.
Cagers Drop Home Opener to Harvard

Saturday evening the varsity basketball team opened their home schedule as they played host to Harvard. The Tsukkun were outscored 84-54 by the red-hot Crimson squad. Three evenings before, the engineers had been edged 86-85 by Northeastern and they were looking for their first win of the season.

The contest indelibly belonged to the victors when, with the score 1:59 in their favor, they ran off seven straight. When the Beavers' Dave Koch, '62 and Ralph Morrow, '60, tried to get their squad back into contention with quick buckets, but Harvard tore off eight points in a row and continued to pour it in a 48-39 lead at the intermission.

The second half failed to change the complexion of the game, and the Crimson's pair of quintets continued to roll up the score over the weary Tsukkun. With about three minutes left, MIT Coach Jack Barry went to his bench and substituted freely.

Until John Crissman, '61, fouled out midway in the second half, he, Morrow, Dave Koch, Howie Ziehm, '62, and Chuck Haibl, '61, had played almost the entire game. Morrow was the engineers' high scorer with 12, but his shooting was way off, as the tight Harvard defense forced him to shoot from far outside the keyhole. This same defense kept MIT to taking shots as well as interrupting many of the Beavers' passes.

Tonight the varsity quintet meets a WPI team that has beaten Trinity (70-58 victory over MIT) at the Cage at 8:45.

Exhaustive testing of full-scale rocket engine thrust chambers is carried on at the Florida Research and Development Center.

Engineers and what they do at Pratt & Whitney Aircraft...

The field has never been broader

The challenge has never been greater

Engineers at Pratt & Whitney Aircraft today are concerned with the development of all forms of flight propulsion systems—air breathing, rocket, nuclear and other advanced types for propulsion in space. Many of these systems are so entirely new in concept that their design and development, and allied research programs, require technical personnel not previously associated with these types of development or engines. Where the company was primarily interested in graduates with degrees in mechanical and aeronautical engineering, it now also requires men with degrees in electrical, chemical, and nuclear engineering, and in physics, chemistry, and metallurgy.

Included in a wide range of engineering activities open to technically trained graduates at all levels are these four basic fields:

ANALYTICAL ENGINEERING Men engaged in this activity are concerned with fundamental investigations in the fields of science or engineering related to the conception of new products. They carry out detailed analyses of performance and structural requirements of the new product and design it as a complete working mechanism.

DESIGN ENGINEERING The prime requisite here is an active interest in the application of aerodynamics, thermodynamics, stress analysis, and principles of machine design to the creation of new flight propulsion systems. Men engaged in this activity at P&W hold the key to the specific performance and structural requirements of the new product and design it as a complete working mechanism.

EXPERIMENTAL ENGINEERING Here men supervise and coordinate fabrication, assembly and laboratory testing of experimental apparatus, system components, and development engines. They devise test rigs and laboratory setups, specify instrumentation and direct execution of the actual test programs. Responsibility in this phase of the development program also includes analysis of test data, reporting of results and recommendations for future effort.

MATERIALS ENGINEERING Men specializing in this field at P&W investigate metals, alloys and other materials under various environmental conditions to determine their usefulness as applied to advanced flight propulsion systems. They devise material testing methods and design special test equipment. They are also responsible for the development and application of new fabrication techniques and causes of failures or manufacturing difficulties.

World's foremost designer and builder of aircraft engines

PRATT & WHITNEY AIRCRAFT

Divisions of United Aircraft Corporation

CONNECTICUT OPERATIONS — East Hartford

FLORIDA RESEARCH AND DEVELOPMENT CENTER — Palm Beach County, Florida

For further information regarding an engineering career at Pratt & Whitney Aircraft, contact your college placement officer.

Fresh Mattman Edged

Varsity Wrestlers Down Wesleyan

Andrew Bulfer, '61, gained the lone victory by a pin for MIT Friday as the Engineers wrestled Wesleyan. 16-11. The victory marked a great improvement for the Beavers, who lost 8-21 to Wesleyan last year.

It was the second triumph of the current campaign for coach Alex Scott's matmen, who edged Tufts 33-3 last weekend. The freshman grapplers fared not so well, however, as they absorbed their first loss, 15-16.

Bulfer Wins In 2:14

Bulfer, competing in the 138 lb. class, ended his match at 2:14. Decisions went to Tedds John Sullivan, '61, in the 147 lb. division (4-2), Dave Latham, '61, in the 157 lb. section (5-4). Captain Jim Evans rolled to an easy 6-1 pin.

Fenton Scored Freshman

John Fenton recorded the only pin for coach Maloney's freshmen as he canvased his opponent in 2:52.

Fun Round the Round Hearth

STOWE'S GREAT SKI DORM

Winter sports, with its great camaraderie, the Round Hearth's the ideal place to relax and refresh in the way only Stowe can do it. muscular, casual, glowing spirits, dancing, relaxing around the famous circular fireplace—it adds companionship, the Round Hearth's the place to rest and refresh yourself.

By Paul T. Robertson, '61

Boston College spoiled the varsity track team's debut on their new track Friday evening with a 12-11 count. The fresh win also denied an 86-84-84 win.

The Beavers easily outdistanced the visitors in the field events, 30-12, but were unable to keep up with the BC runners, with only Bob Williamson, '60, managing to break into the winners' circle in the low hurdles.

High scorer for Tech were Williamson with a first in the hurdles and second in the 30-yard dash, and Captain Bill Nicholson, '60, also with a first and second place. In the 440-yard dash, he won with 49:1, Nate Latham, '61, won with 50:1 in the pole vault, and Neal Bearde, '61, in the discus throw.

The grapplers will be in action at WPI tomorrow.
Beaver Swim Teams Win; Break Three MIT Records

One varsity and two freshman records were eclipsed Saturday as both Engineer swimming teams gained decisive victories. The varsity routed Bowdoin, 50-36, at Alumni Pool while the fresh whirled Army, 44-25, at West Point.

West Sets Mark

Bennett West, '60, clipped six-tenths of a second off the 200-yard breaststroke mark with a 2:44.8 performance which came on the heels of his second place in the winning medley relay.

The relay team, composed of Tom Ising, '61, West, Antonio Silvestri, '61, and captain John Windle, '60, turned in a time of 4:11.1 for the 400-yard medley.

Joe Schrade, '60, and Louis Thompson added to the margin of victory by a strong Beaver medley relay quartet made up of captain Tim Sloat, '60, and Dave Stein, '62, captured the 440-freestyle in 5:28.0.

Championing this swimmer, the duo turned in a :55.0 in the 100-yarder, a tenth of a second off the record.

Lauren Sompayrac, Neil Golden and Jim Hufford.

 varsity squash team suffered 8-1 defeat at the hands of the Harvard crew.

The varsity routed Bowdoin, 50-36, at Alumni Pool while the frosh whipped them by scores of 15-10, 13-15, 16-5, 7-45, and 17-16. John Beckett, '60, at seven, took two games before losing 3-2, while John Priest, '60, at six and Paul Read at number one each won one game.

Blanketed were Klapper at two, Bob Hodges, '61, at four, Colla Clive, '60, at five, George Meyer, '62, at eight, and Joe Sturtz, '61, at nine.

Schedule Unfavorable

Tomorrow evening at 7:00 P.M., the raconteurs travel to Harvard in their final appearance before the New Year.

This will be the concluding match of four of the roughest encounters that the varisty will have this winter.

It was an unfortunate break of the schedule that sent the unseemlyTeddy against Dartmouth this past weekend, the varsity squash at Harvard and the start of the campaign.

After the vacation, Coach Ed Crocker's squad will meet Amherst, Williams, and the University of Vermont.

Racqueotes Lose to Army, Navy; Meet Strong Harvard Team Next

After an encouraging opening match against Dartmouth last weekend, the varsity squash teams suffered 8-1 defeats by Navy and Army this past weekend. Falling at the 6a Port Center courts Friday afternoon, the Engineers were able to take only the number two match, while the following afternoon at West Point, victory at number three averted the shutdown.

Klapper Wins

Jack Klapper, '60, countered his opponent from Annapolis 3-2, in a match that was close all the way. The other eight contests against Navy were all lost by more than one game. In addition, Loutfy El Sherbiny, '61, playing in the ninth position, suffered an eye injury to put him out of action temporarily.

El Sherbiny Triumphs

Saturday's results were substantial only the same, however, the lone Beaver victory this time was Loutfy El Sherbiny, '61, at the number three spot.

Sherbiny squeezed out at 3-2 triumph by scores of 15-10, 13-15, 16-5, and 17-16. John Beckett, '60, at seven, took two games before losing 3-2, while John Priest, '60, at six and Paul Read at number one each won one game.

Blanketed were Klapper at two, Bob Hodges, '61, at four, Colla Clive, '60, at five, George Meyer, '62, at eight, and Joe Sturtz, '61, at nine.

Schedule Unfavorable

Tomorrow evening at 7:00 P.M., the raconteurs travel to Harvard in their final appearance before the New Year.

This will be the concluding match of four of the roughest encounters that the varsity will have this winter.

It was an unfortunate break of the schedule that sent the unseemlyTeddy against Dartmouth this past weekend, the varsity squash at Harvard and the start of the campaign.

After the vacation, Coach Ed Crocker's squad will meet Amherst, Williams, and the University of Vermont.

Consider Working for PUBLIC SERVICE— one of the leading Electric and Gas Companies in the United States

Public Service Electric and Gas Company ranks fourth in total revenues among investor-owned operating utility companies in the United States providing both electric and gas services. Serving the highly concentrated residential heart of New Jersey which constitutes a thriving territory seeking with diversified industry. Public Service is certain to realize a dynamic expansion during the years ahead. With an ideal location between the first and fourth largest cities in the U.S.A., New York and Philadelphia, the Company enjoys business of such diversification as to result in a high degree of stability of employment.

PUBLIC SERVICE ELECTRIC AND GAS COMPANY • Newark 1, New Jersey
Getting Down to Business

Editor's note: We didn't believe this either. Sorry we didn't print it the minute we got it — we been saving it all for ourselves.

It had to happen sooner or later. They expect us to get down to business, and take this classroom, textbook and term paper jargon seriously.

The first few weeks are always great. There are a lot of important things to be taken care of, like lining up dates and getting acquainted and generally getting squared away. The instructors seem to understand this and don't make too many demands. But there's always a time to redress, and the first thing you know you're being clothed in a spot quilt or a paper. That's the stony. Though the instructors don't actually tell you what they mean is - "Okay, I've been pretty patient so far. Now you get down to work, or else..."

Of course, comfort is the first consideration in the classroom. Nobody can expect a man to concentrate on electronics or history when he's being distracted by uncomfortable clothes. On the other hand, the dozy look is way out. Many colleges have even gone so far as to insist on ties and jackets in the classrooms.

Wool chinks is the best news in ties. In soft fabric, muted colors, stripes or small overall designs, these ties somehow strike the right note.

In fact, they are called the "Ex Libris" ties somehow strike the right note. In black, it's right with those new neck ties somehow strike the right note. In fact, they are called the "Ex Libris" ties somehow strike the right note.

For those of us who don't quite function right in the morning, there's an all-wool Kwip-Klip tie, and its knot function right in the morning, there's a very comfortable one.

I've been pretty patient so far. Now, though, you're being clobbered with a spot quiz or a paper. That's the stony. Though the instructors don't actually tell you what they mean is - "Okay, I've been pretty patient so far. Now you get down to work, or else..."

Though the instructors don't actually tell you what they mean is - "Okay, I've been pretty patient so far. Now you get down to work, or else..."

The first few weeks are always great. There are a lot of important things to be taken care of, like lining up dates and getting acquainted and generally getting squared away. The instructors seem to understand this and don't make too many demands. But there's always a time to redress, and the first thing you know you're being clothed in a spot quilt or a paper. That's the stony. Though the instructors don't actually tell you what they mean is - "Okay, I've been pretty patient so far. Now you get down to work, or else...", even neat foulard designs. You like the boat-neck on your Shetland sweatshirt? Ask to see a T-shirt cut with a boat neck. It is a new idea, and a very comfortable one. You may not make Dean's list, but you'll look very comfortable one.

Pick shorts in deep Tartan or Ivy plaid, colorings, in plaids or stripes, and even neat foulard designs. You like the boat-neck on your Shetland sweatshirt? Ask to see a T-shirt cut with a boat neck. It is a new idea, and a very comfortable one. You may not make Dean's list, but you'll look very comfortable one.

Any student spends a lot of time sitting down — so comfort in that department is also pretty important. The Arrow shorts have a no-sag, no-slip contour seat, and are available in an impressive array of colors and fabrics. To want to sport your fraternity motif, or your college mascot? Better still, the mascot of your girl's college? You'll find solid-color shorts with a choice of those motifs, discreetly embroidered. You want to carry on dates and getting unpacked and taking dates to be taken care of, like lining up dates and getting acquainted and generally getting squared away. The instructors seem to understand this and don't make too many demands. But there's always a time to redress, and the first thing you know you're being clothed in a spot quilt or a paper. That's the stony. Though the instructors don't actually tell you what they mean is - "Okay, I've been pretty patient so far. Now you get down to work, or else..."

The first few weeks are always great. There are a lot of important things to be taken care of, like lining up dates and getting acquainted and generally getting squared away. The instructors seem to understand this and don't make too many demands. But there's always a time to redress, and the first thing you know you're being clothed in a spot quilt or a paper. That's the stony. Though the instructors don't actually tell you what they mean is - "Okay, I've been pretty patient so far. Now you get down to work, or else...", even neat foulard designs. You like the boat-neck on your Shetland sweatshirt? Ask to see a T-shirt cut with a boat neck. It is a new idea, and a very comfortable one. You may not make Dean's list, but you'll look very comfortable one.

Tech Coop

$19.95

uring tip also available

New 1960 I&M brings you taste...more taste...

More taste by far... yet low in tar!

New, free-flowing Miracle Tip unlocks natural tobacco flavor!

That's why I&M can blend fine tobacco not to suit a filter... but to suit your taste!

Only the 1960 I&M - Frees up flavor other filters squeeze out! * Checks taste without choking taste! * Gives you the full, exciting flavor of the world's finest, naturally mild tobacco!

More taste by far...yet low in tar...And they said it "couldn't be done!"